11th Quarterly Report – Public Page

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Prepared for: Department of Transportation/Pipeline and Hazardous Materials

Safety Administration

Project Title: Advanced Learning Algorithms for PIGPEN

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For quarterly period ending: September 30, 2013

Work Completed During this Quarterly Period

Task 4.3 - Field Test Planning

Previously, we reported for plans for: Field Test #2 at the Heath facility in Houston; Field Test #3 which was scheduled to start in late August at the PSG&E site in Woodbridge NJ; and Field Test #4 at the Con Ed service station in Eastview, NY. Field tests #3 and #4 were again delayed as described below. During the current reporting period, we completed the Field Test Installation Guide.

This activity completes T&D Milestone Item #19.

Tasks 6.2 and 6.3 – Field Tests #2 and #3

Data acquisition for Field Test 2 was completed Heath facility in Houston. This test intended to combine evaluation of the self-learning algorithm with validation the reliable operation of the new system hardware that was developed in our parallel project to gather the data. The real-time processing software completed previously was not yet installed for this test, but the collected data were stored for post-processing to evaluate the success of the self-learning algorithms.

After initial testing in July, data acquisition was temporarily suspended to resolve hardware issues with communications and moisture ingress. Corrective actions were implemented, and data acquisition resumed in mid-August, coincident with the onset of significant construction activity at the Heath site.

At the end of the reporting period, the system had been dismantled from the Heath site and is being prepared for shipment to ConEd for Field test #3, scheduled to commence on October 22. Processing of data acquired in Field Test #2 is planned for October.

Results and Conclusions:

No new results are reported at this time

Plans for Future Activity:

Field tests, data processing, analysis and reporting will continue throughout the next period.